Success Story

Durban University of Technology Adopts NI AWR Software to Advance Academic Course Level and Improve Pass Rate

Company Profile

The Durban University of Technology (DUT) is a technology university located in KwaZulu-Natal, South Africa. Established in 2002 by the merger of Technikon Natal and ML Sultan Technikon, DUT is a preferred university for developing leadership in technology and productive citizenship.

The Design Challenge

Stuart MacPherson has been running an RF design course at the Durban University of Technology for over 20 years. The course content includes transmission lines, impedance matching, network characterization, small-signal, low-noise and power amplifier design, oscillator design, and more. Until 2014, he used a competitive software package for design, simulation, and optimization. While the vendor does have a university donation program, there is, however, an annual license fee that is not insignificant for a developing African country. More importantly, the license is for a fixed 30-station laboratory which does not allow students to use the software off campus. It was for these two reasons that MacPherson contacted NI (formerly AWR) in September 2014 to investigate an alternative option.

The Solution

MacPherson was extremely impressed by the NI AWR software team's willingness to assist, as well as the ease with which the whole process of installation of the software, licensing etc. was accomplished. Expecting a steep learning curve, his initial plan was to continue with the existing software package for at least a semester while he brought himself up to speed with NI AWR software and then slowly migrate. However, because the transition was so easy with the resources available on the support website, MacPherson found he was able to switch immediately at the start of the academic year in January 2015.

The students have loved being able to use the software on their own laptops at home. With this advantage, MacPherson has been able to set many more design assignments of a more complex nature for home study. This has resulted in the academic level of the course being advanced and the pass rate being improved.

Why NI AWR Design Environment

MacPherson chose NI AWR Design Environment thanks to the robust and advantageous AWR University Program, which works with universities worldwide to empower students with the RF/microwave software tool experience, so they can have complete access to these tools prior to graduation and entering the industry. This program has provided DUT with completely free, fully functional licenses not only for on campus use, but for home study as well, enabling students to have 24/7 access to the design tools they need. The excellent field support for installing and licensing the software combined with its ease of use and excellent on line support resources enabled him to implement the software within his program immediately, with no migration period.

Application:
RF/Microwave Curriculum
Software:
NI AWR Design Environment

> " *Implementing NI AWR software in the DUT RF design curriculum has resulted in the academic level of the course being advanced and the pass rate being improved, a win-win situation that is not often encountered in an academic environment! It has been a pleasure interacting with our sales representative and we are looking forward to many more years in the NI AWR University Program.* "

– S.D. MacPherson
Associate Director
Department of Electronic Engineering
Durban University of Technology
dut.ac.za

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